

In the specification:

Please replace the paragraph beginning on page 9, line 10 with the following paragraph:

The cannula rotating mechanism is comprised of a lead screw 22 (which also serves as the actuator rod) and a lead screw nut 23. The lead screw is formed of a tube, with screw threads on the outside of the tube and a lumen passing through the tube. The lead screw is longitudinally fixed to the pistons, such that the lumen of the lead screw communicates with the respective piston bores. (The actuator rod or proximal extent of the cannula may pass through the lumen of the lead screw.) The lead screw nut is adapted to receive the lead screw. The lead screw is screwed into and through the lead screw nut. The cannula 3 is rotationally fixed into the lead screw, either directly or indirectly. When the pistons are translated, the lead screw translates under operation of the pistons and rotates via translation of the lead screw through the lead screw nut. The lead screw can have a pitch of 1 inch per revolution, such that for every inch of translation, the lead screw rotates one revolution. Because the ~~cannula~~ lead screw is rotationally fixed to the cannula, the rotation of the lead screw is translated to the cannula.

Please replace the paragraph beginning on page 15, line 14 with the following paragraph:

The advance side 61 of the piston cylinder 16 must be evacuated prior to application of high pressure fluid to the retract side, to prevent hydraulic/pneumatic binding of the piston. The advance side of the piston cylinder may be vented in any convenient manner. In the device illustrated in the Figures, the valve bodies comprise cylinders <sup>i</sup> with end caps <sup>ii</sup>. The threading of end cap on the advance valve is machined so that it is slightly loose (or gas valve threads are used, and the cap is not completely seated) and allows slight leakage of the cryogen from the valve body reservoir. Thus, after the bulk of the cryogen is exhausted into the piston cylinder, ~~the piston cylinder,~~ the advance side exhausts through the end cap. The retract cylinder is vented in the same manner. Vented may be accomplished with small apertures in the end caps or valve bodies in similar fashion.

Please replace the paragraph beginning on page 17, line 7 with the following paragraph:

Figure 8 shows a detailed view of the cannula cutter. The cutting edge is provided in the form of a scalloped bevel, formed by multi-axis machining. Thus, the cutting edge ~~3e~~ 3d has several distally extending, longitudinally rounded protrusions which are provided with a sharp longitudinally oriented bevel, with the cutting edge toward the inner wall of the cannula, and the bevel extending proximally toward the outer wall, and the circumference of the bevel following a scalloped or sinusoidal curve relative to the longitude of the cannula. A

beveled tip with three such longitudinally rounded protrusions works well on breast tissue.